Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

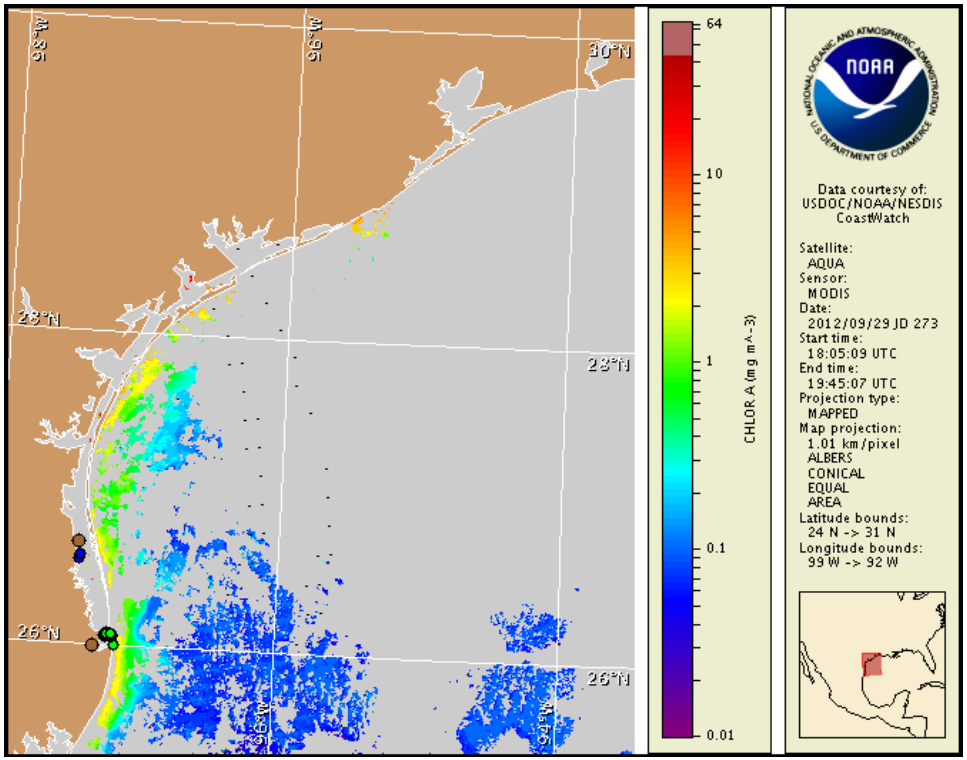
Monday, 01 October 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 24, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from September 21 to 28 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

http://www.tpwd.state.tx.us./landwater/water/environconcerns/hab/redtide/status.phtml

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To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

There is currently no indication of a harmful algal bloom of Karenia brevis (commonly known as Texas red tide) at the coast in Texas. Harmful algae have been identified in the South Padre Island region. Patchy very low respiratory impacts are possible today through Wednesday in the South Padre Island region. No additional respiratory impacts are expected alongshore Texas today through Monday, October 8. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Analysis

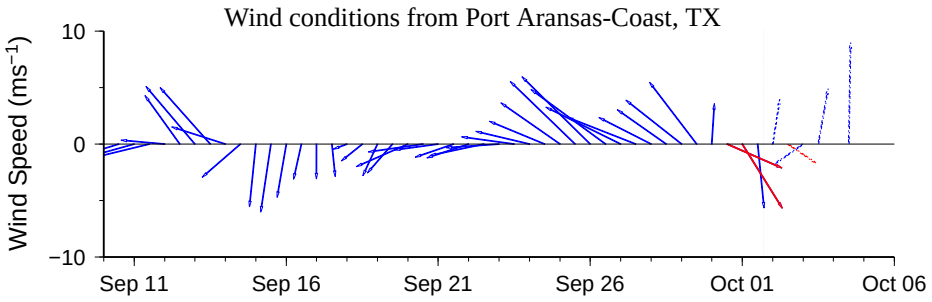
Due to the upcoming Federal Holiday, the next bulletin will be issued on Tuesday, October 9.

There is currently no indication of a harmful algal bloom of *Karenia brevis* at the coast in Texas, although patches of bloom concentrations were identified last week. In the Port Mansfield region of the lower Laguna Madre, samples collected early last week ranged between 'very low b' and 'low a' concentrations of *K. brevis* and *K. mikimoitoi* (TPWD; 9/25). Samples collected further south within the lower Laguna Madre, near the Port Isabel region, indicate that *K. brevis* has decreased since 9/21 from a range between 'very low a' and 'medium' concentrations (9/21) to a range between not present and 'very low a' (TPWD; 9/24-27). No new samples have been received from San Martin Pass where 'low a' concentrations were identified on 9/21 (TPWD). Along the Gulf Coast, *K. brevis* was not present in recent samples from UTPA Coastal Studies Lab or Boca Chica Beach at Highway 4 (TPWD; 9/24-27).

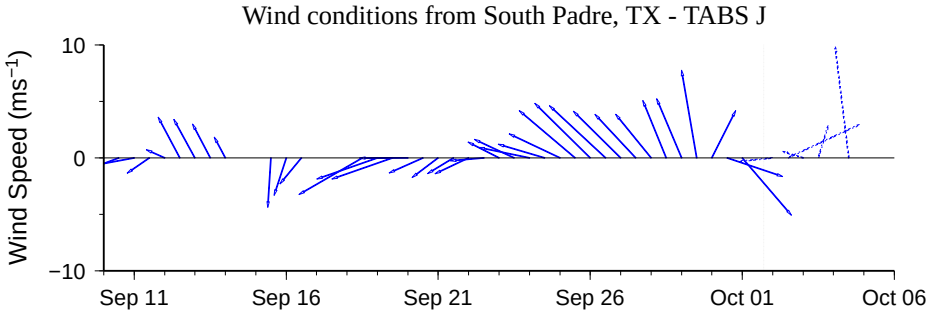
Recent MODIS imagery (9/29; shown left) is partially obscured by clouds alongshore the Texas coastline, from the Freeport to South Padre Island region, limiting analysis. Patches of elevated chlorophyll (2-4 μg/L) are visible stretching along- and offshore from Matagorda Island to south of the Rio Grande. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and could also be due to the resuspension of benthic chlorophyll and sediments along the coast. In situ sampling is necessary to confirm the presence of *K. brevis*.

Forecast models based on predicted near-surface currents indicate a potential maximum transport of 20 km north from the Port Aransas region and 40 km north from the Brazos Santiago Pass region from September 29 to October 4.

Kavanaugh, Derner



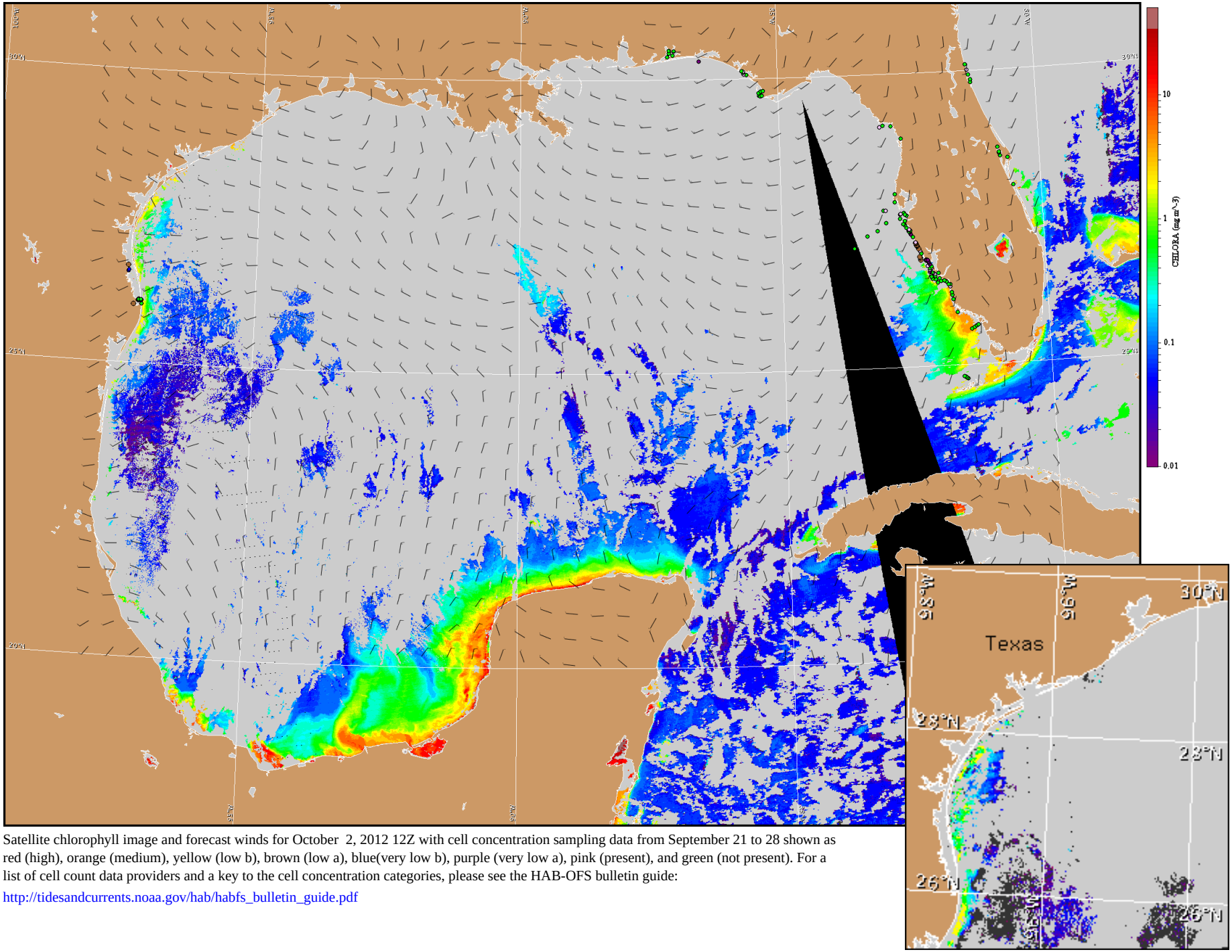
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

Port Aransas: North to northwest winds (10-20 kn, 5-10 m/s) today becoming west to southwest winds (5-10 kn, 3-5 m/s) this afternoon through tonight. West to northwest winds (5-10 kn) Tuesday becoming north winds (5-10 kn) Tuesday night. Southeast winds (5-10 kn) Wednesday becoming south winds (10-20 kn) through Thursday. Southeast winds (5-15 kn, 3-8 m/s) Thursday night through Friday night.

South Padre Island: North winds (10 kn, 5 m/s) today. Northeast winds (10 kn,) becoming light winds tonight. Light to northeast winds (10 kn) Tuesday East to southeast winds (10 kn) Tuesday night. Southeast winds (10-15 kn, 5-8 m/s) Wednesday through Friday.



Satellite chlorophyll image and forecast winds for October 2, 2012 12Z with cell concentration sampling data from September 21 to 28 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:
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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).